**Environment Week - Royal Botanic Gardens Trail**

*- Get off at Domain Rd. Tram Stop*

*- Walk with teachers to Gate ‘F’, Royal Melbourne Botanic Gardens*

*- Meeting in groups of 4 with Mr. Beekman near the F Gate Lodge.*

*- Dismissal from Venue will be possible for students with a signed permission form in a group*

*with all tasks properly completed.*

**Aims of the Trail:**

*To explore traditional and water-sensitive gardens located around the Botanic Gardens, and answer the following questions with the help of your trail group:*

**Guiding Question for the Trail:**

**How is the Royal Botanic Gardens Melbourne saving water and creating a sustainable garden environment for the future?**

**Your Group’s Task:**

Of all the different water-saving gardens you discover on the trail, give examples from the one that you believe is the most successful for each topic below:

**Most Sustainable Water-Saving Garden: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

|  |  |
| --- | --- |
| Information, Evidence, and Reasons: | Sketch of plant or detail from garden: |

**Most Aesthetically Pleasing / Beautiful Water-Saving Garden: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

|  |  |
| --- | --- |
| Information, Evidence and Reasons: | Sketch of plant or detail from garden: |

**Best Garden Design (Water-Saving Garden): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

|  |  |
| --- | --- |
| Information, Evidence and Reasons: | Sketch of plant or detail from garden: |

**Most Interesting Dry-Tolerant Plants: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

|  |  |
| --- | --- |
| Information, Examples and Reasons: | Sketch of plant or detail from garden: |

**Most Effective in Educating the public** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(about sustainable / best practice gardening in Melbourne)

|  |  |
| --- | --- |
| Information, Evidence and Reasons: | Sketch of plant or detail from garden: |

How does the Royal Botanic Gardens conserve water?

* Turf areas are being converted to warm-season grasses such as Kikuyu, which are more water efficient than cool-season turf like Rye grass. Warm-season grasses typically use up to 30% less water than cool-season species.

* A weather-based irrigation scheduling system was developed that accounts for plant requirements, end for, climatic conditions, soil water-holding capacity and rooting depths to maintain plant health, rather than promote excessive growth. This approach also increases the opportunities to make best use of any rainfall. Efficient irrigation scheduling means that the right amount of water is applied at the right time.

* Mulch is used on garden beds. Over 1000 cubic metres of mulch are applied to garden beds every year. The mulch depth is typically between 50-75mm. The mulch minimises soil water losses from evaporation and improves water-holding capacity of the soil.

* The RBG Melbourne uses water-sensitive design principles for all new landscape areas. The Water Conservation Garden and indigenous landscape at Long Island are key examples of this approach. The following collections feature plants adapted to dry conditions:
* **Arid Collections (cacti and succulents)**
* **Californian Collection**
* **Grey Garden**
* **Cycad Collection**
* **Lower Yarra River Habitat (**[**indigenous plants of Melbourne**](http://www.rbg.vic.gov.au/rbg_melbourne/living_collections/long_island)**)**
* **Southern Africa Collection**
* [**Water Conservation Garden**](http://www.rbg.vic.gov.au/rbg_melbourne/living_collections/water_conservation_garden)

* Through the use of an Automatic Weather Station, rainfall, solar radiation, air temperature, wind speed and relative humidity are continuously monitored and readings used to estimate the evapotranspiration rate of each plant category in the Gardens.

* Irrigation water use is regularly monitored, compared with past years and climatic conditions, and reported monthly across the Royal Botanic Gardens to assist the development of 'water-saving consciousness' in the culture of the organisation.

**Final Instructions and Map:**

* See your map for locations of water-sensitive gardens and traditional gardens.
* As for all Trails, take photographs and make sketches and notes as you go. Upload these to your Blog under the title: ‘Urban Environment’ Trail.
* Consider the Galileo Focus Questions as you walk around the gardens:

**Is Melbourne a Livable City? For Whom?**

**How Sustainable are Melbourne’s Parks and Gardens?**

**What Makes a Good Citizen in terms of our Environment?**